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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,465	12/14/2001	William L. Lundy	Perox-Chelant	3617

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EXAMINER
KRECK, JOHN J

ART UNIT	PAPER NUMBER
3673	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/023,465	Applicant(s) LUNDY, WILLIAM L.	
	Examiner John Kreck	Art Unit 3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 13* is/are rejected.

7)☒ Claim(s) *11 and 12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Obj ctions

1. Claims 4, 5, and 10-12 are objected to because of the following informalities: claims 4 and 5 apparently should depend from claim 3, since they call for the aminopolycarboxylate first mentioned in claim 3. Claim 12 apparently should depend from claim 11, since it calls for the buffering agent first mentioned in claim 12. Additionally, it is questioned whether claims 10 and 11 should depend from claim 8 or claim 9.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> **The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

2. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 is unclear regarding the "mixture thereof"; since no other component is mentioned in the mixture.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> **A person shall be entitled to a patent unless –**

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1,2, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Tarr, et al. (U.S. Patent number 6,459,011).

Tarr teaches the method of decontaminating soil and groundwater including the steps of treating with an effective amount of peroxide (col. 3, lines 54-60) and water soluble chelating agent for a time sufficient to have the water soluble chelating agent chelate at least one divalent metal (see col. 6, lines 31-36); reacting the chelated metals with the peroxide; and contacting the organic contaminants to oxidize the contaminants as called for in claim 1.

Tarr also teaches the iron as called for in claim 2.

Tarr also teaches the metal peroxide (col. 4, line 41) as called for in claim 13.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watts, et al. (U.S. Patent number 5,741,427) in view of Tarr, et al. (U.S. Patent number 6,459,011).

Watts teaches a method including the treating with peroxide, chelating agent, and divalent metal. Watts teaches the divalent metal added to the chelating agent prior to treatment, and thus fails to teach the treating the soil with chelating agent and allowing the agent to chelate divalent metal present in the soil/groundwater.

Tarr teaches that in a similar process, the chelant can be reacted with divalent metal (iron) in the soil/groundwater when the ambient concentration is high enough(see col. 6, lines 31-36). It is apparent that this is cost effective, since further iron is not needed.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Watts process to have not added the divalent metal prior to treatment, and to have relied on ambient iron, thus including the step of treating for a time sufficient to allow the chelating agent to react with divalent metal present in the soil and ground water as called for in claim 1; in order to reduce costs.

Watts teaches the iron of claim 2.

Watts teaches the aminopolycarboxylate (EDTA—col. 10, line 20) of claim 3.

Watts teaches the alkylenepolyamine polycarboxylate of claim 4.

Watts teaches the concentration of about 0.3 to 1.3 moles/liter of chelating agent (see col. 10, line 15) and the concentration of about .6 to 4.5 moles/liter of peroxide as called for in claim 5.

With regards to claim 6; Watts fails to teach the blend of agents; however these chelating agents are art-recognized equivalents. It would have been further obvious to one of ordinary skill in the art at the time of the invention to have modified the Watts

process to have included a blend of agents, as called for in claim 6; since they are art-recognized equivalents.

Watts teaches the EDTA of claim 7.

With regards to claim 8; Watts fails to teach the blend of agents; however these chelating agents are art-recognized equivalents. It would have been further obvious to one of ordinary skill in the art at the time of the invention to have modified the Watts process to have included a blend of agents, as called for in claim 8; since they are art-recognized equivalents.

With regards to claims 9 and 10; Watts fails to teach the pH; thus it would have been obvious to one of ordinary skill in the art at the time of the invention to have practiced the invention of Watts, as modified, with a pH of at least 7.0, or in the range of 7.0-9.5; as called for in claims 9 and 10; since a neutral aqueous solution is expected to have pH of 7.0.

Watts also teaches the metal peroxide as called for in claim 13.

Allowable Subject Matter

5. Claims 11 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Raymond, et al. (U.S. Patent number 4,588,506); Pignatello (U.S.

Patent number 6,160,194); Redwine, et al. (U.S. Patent number 6,210,078); and Alvino (U.S. Patent number 5,564,105) teach similar methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kreck whose telephone number is (703)308-2725. The examiner can normally be reached on M-F 6:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on (703)308-2978. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3597 for regular communications and (703)305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-4177.

John Kreck
Examiner
Art Unit 3673

JJK
June 27, 2003